

CITY OF



CANTERBURY.

Medical Officer's Annual Report for 1898.

To the Mayor and Members of the Sanitary Committee.

GENTLEMEN,

I have the honour of presenting to you my Twenty-second Annual Report of the Health and Sanitary Condition of the Borough for the past year.

Births:—

The number of births registered in the Borough during the year 1898 was 613; 310 of which were males, and 303 females, making a birth rate of 27 per 1000 of the estimated population of 1891, viz.: 23,026. The birth rate for England and Wales in 1898 was 29.4 per 1000.

Deaths:—

The number of deaths registered in the year 1898 was 441; 202 of which were males, and 239 females.

103 of which were under 1 year of age;
38 of 1 year of age and under 5;
20 of 5 years of age and under 15;
17 of 15 years of age and under 25;
102 of 25 years of age and under 60;
161 of 60 years of age and upwards;

44 of these deaths occurred at the Kent and Canterbury Hospital, inclusive of 32 cases brought into the Hospital from the Country Districts with their fatal diseases upon them, for Medical and Surgical treatment.

The death rate of the estimated population of 1891, viz.: 23.02 for the year 1898 would be therefore 19.1 per 1000, including the 32 deaths in the Hospital brought from the country districts. Excluding the number 32 so introduced, the actual death-rate for the City is 17.7 per 1000. The death-rate for England and Wales in 1898 was 17.6 per 1000.

The excess of births over deaths for the year 1898, was 172.

There is an increase of 11 deaths over last year, an increase of 80 over 1896, a decrease of 13 over 1895, an increase of 52 over 1894, an increase of 1 over 1893, a decrease of 10 over 1892, a increase of 37 over 1891, an increase of 21 over 1890, an increase of 12 over 1889.

Infantile Mortality:— There were 103 deaths under 1 year of age, exactly the same as last year. The Infantile Mortality calculated by the number of deaths under 1 year of age to 1000 births registered, is 167.

The cause of Mortality will be seen from the following table:—

DEATH RATE FOR CANTERBURY AS REQUIRED BY THE LOCAL GOVERNMENT BOARD FOR 1898.

Name of Disease.	Under Five Years.	Over Five Years.
Small Pox	0	0
Scarlatina	0	2
Diphtheria	3	3
Membranous Croup	1	0
Fever. { Typhus	0	0
Enteric or Typhoid	0	1
Continued	0	0
Relapsing	0	0
Puerperal	0	0
Cholera	0	0
Whooping Cough	5	0
Erysipelas	0	0
Measles	13	2
Diarrhoea and Dysentery	12	0
Rheumatic Fever	0	2
Ague	0	0
Phthisis	0	36
Bronchitis, Pneumonia, and Pleurisy	23	25
Heart Disease	0	36
Injuries	0	5
Influenza	0	7
All other Disease	84	183
Total for 1898	441	300

These figures should be compared with those of previous years, as seen in the following table:—

CAUSES OF DEATHS IN CANTERBURY FOR THE PAST TEN YEARS.

CAUSES.	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898
Smallpox	0	0	0	0	0	0	0	0	0	0
Scarlatina	0	0	0	6	1	1	1	1	3	2
Measles	0	16	0	2	14	2	19	3	0	15
Diphtheria	8	6	1	2	1	5	4	12	4	6
Membranous Croup	1	1	1	0	2	1	1	2	1	1
Whooping Cough	1	3	8	2	4	19	2	1	19	5
Fever. { Typhus	0	0	0	0	0	0	0	0	0	0
{ Typhoid	9	4	4	2	6	6	4	1	5	1
{ Relapsing	0	0	0	0	0	0	0	0	0	0
{ Puerperal	0	0	0	2	1	1	0	0	0	0
Cholera	0	0	0	0	0	0	0	0	0	0
Erysipelas	0	0	0	2	3	1	0	1	0	0
Diarrhoea and Dysentery	16	2	3	3	19	1	17	1	4	12
Rheumatic Fever	2	4	0	1	3	0	1	0	1	2
Ague	0	0	0	0	0	0	0	0	0	0
Phtisis	46	41	49	38	39	28	53	36	33	34
Bronchitis, Pleurisy and Pneumonia	65	46	52	86	56	56	49	37	51	48
Heart Disease	47	45	48	34	46	48	43	36	47	36
Injuries	14	6	8	8	4	5	4	6	4	5
Other Diseases	216	245	230	265	231	213	256	229	223	279
TOTALS.....	429	420	404	451	440	389	454	363	430	441

The average number of deaths for the past ten years is 422.1 so the past years is above the average.

I beg to call your attention to the following table of figures which gives the number of births and deaths for the past twenty-one years.

Year.	Births.	Deaths.	Year.	Births.	Deaths.
1878	712	499	1889	641	429
1879	689	450	1890	549	420
1880	687	421	1891	615	404
1881	653	428	1892	605	451
1882	638	498	1893	593	440
1883	671	419	1894	598	389
1884	650	416	1895	591	454
1885	616	415	1896	626	363
1886	625	510	1897	621	430
1887	669	457	1898	613	441
1888	645	421			

The average number of births for 21 years is 638.8 ; deaths 435.20 ; so the number of births during the past year is above the average, and the number of deaths is slightly above the average for the past 21 years.

Comparative Table of the age at which Death occurred:

	At all Ages.	Under 1 year.	1 & under 5.	5 & under 15.	15 & under 25.	25 & under 60	60 & upwards
1889	429	76	38	14	31	128	142
1890	420	79	39	16	21	124	141
1891	404	60	37	14	30	91	172
1892	451	87	34	14	29	111	181
1893	440	99	43	15	27	109	147
1894	389	75	44	22	16	89	148
1895	454	78	40	18	27	109	182
1896	363	79	27	13	26	94	124
1897	430	103	46	20	21	94	146
1898	441	103	38	20	17	103	161

Zymotic Death Rate.—The seven chief Infectious Diseases caused 30 deaths as compared with 34 last year, which is equal to an annual Zymotic death rate of 1.3 per 1000 of population. This is lower than in 1897, viz.: 1.5, higher than in 1896, 0.7, lower than in 1895, 1.7, and lower than in 1894, 1.5 per 1000.

Small Pox.—One case of this disease of a mild type occurred in Wineheap, this was promptly removed to the Small Pox Hospital, and the disease stamped out. Vaccination fortunately is carried out with very little friction in Canterbury, and there is no difficulty in getting parents to have their children vaccinated. The great danger is having cases imported from outside the district. The retrograde Vaccination Bill of the Government carried last Session is not wanted and is unnecessary in an enlightened and well educated City like Canterbury. The Bill will do much to increase the danger of the loathsome disease being imported into our midst. Re-vaccination is very necessary as a protection against Small Pox, as after a few years the Vaccine Virus require renewing and the Vaccinated becomes subject to modified attacks of Small Pox, completely prevented by re-vaccination.

Enteric, or Typhoid Fever.—During 1898, 19 cases were notified, out of this number 4 were imported, viz.: 1 from Ramsgate, Margate, Walmer, and America. Of the 14 cases occurring in Canterbury one was attributed to drinking polluted water, 1 from infection at the Sanatorium (Nurse), 1 each from eating oysters and mussels, 2 from broken trap of closet, 1 from flooding of premises by sewage, 1 from defective drain under house, 5 where drains were otherwise defective, and 2 cause unknown. Eight of these cases were treated at the Kent and Canterbury Hospital, 4 at the Sanatorium, and 7 at their own homes. Only one death from this disease occurred.

Erysipelas.—Twenty-seven cases of this disease were notified without a death. One case each of Membranous Croup, Continued Fever, and Puerperal Fever were also notified.

Scarlet Fever.—During 1898, 111 cases of Scarlet Fever were notified with only two deaths. The districts in which these cases happened, 17 were in the neighbourhood of Northgate, 36 St. Dunstan's, 21 Wincheap, 25 Central, and 12 in other districts, including 2 at the Workhouse and 3 at the Sanatorium. Up to the middle of October 22 cases had been reported. About this time a child attending St. Dunstan's Schools was found to be peeling. An epidemic followed among the children, and 32 cases were attributed directly or indirectly to this one source of infection, and causing the Schools to be closed for three months. This was followed by an outbreak at St. Paul's Schools, eight cases being the result. Also at the Payne Smith Girl's School there were 4 cases caused through a child attending the school when in an infectious state. The closing of the two schools and removal of the children attacked to the Sanatorium successfully stopped further cases from these sources. Of the 111 patients, 82 cases were treated at the Sanatorium (including three nurses who contracted the disease whilst nursing there), 29 cases were treated at their own homes. Six cases occurred in one house, 4 each in five houses, 3 each in two houses, 2 each in fifteen houses, and 1 each in 46 houses. The Epidemic of Scarlet Fever was in many cases of a mild type but this added to the difficulty of stamping out the disease, as by mere accident some of the cases were discovered. It is therefore fair to assume that children unknowingly have been suffering from the disease and have thereby been an easy means of spreading it to others. There were however 3 cases of culpable neglect and although proceedings were not taken against the parents for wilful exposure, letters of caution were sent to them. To prevent the spread of infectious disease in Elementary Schools, some system should be adopted by the teachers of reporting to the Medical Officer on a printed form any case of suspected illness among the children, so that he may follow up the case to its own home, and prevent the children from that home attending school until it is known what the child is suffering from. During the time the Schools are closed because of infectious disease, I would deprecate the custom of schools accepting children from the infected school while it is closed, otherwise the object of closing is frustrated, and the danger of carrying the infection to other schools very great.

Whooping Cough.—Caused 5 deaths under 5 years of age. 32 cases of this disease were treated at the Dispensary.

Measles.—Caused 15 deaths under 5 years of age. 252 cases of this disease were treated at the Dispensary in the early part of the year. Measles is infectious for 3 weeks, from the day of commencement of the first symptoms, during this time the child must be kept isolated in a separate room. No healthy child should be allowed to attend Day or Sunday School from a house where measles is prevalent for 3 weeks, and if a second case of measles occur then 3 weeks must elapse from the beginning of this case before any child from the same house is allowed to attend School. It is highly dangerous for parents to visit among their neighbours while their children are suffering from measles or any other infectious disease, or to allow children suffering from such disease to play with other children in the street or elsewhere or to attend school.

Diphtheria.—Of the 26 notifications from this disease, 2 were imported cases, 5 arose from infection (including 2 nurses at the Sanatorium), 3 of the cases were attributed to broken traps, 1 from neglecting to keep a trap charged with water, 4 from other defects in drains, and 11 no sufficient cause assigned. Ten cases were removed to the Sanatorium and 16 were treated at their own homes. There were 6 deaths, 3 over and 3 under 5 years of age.

Diarrhoea.—Caused 12 deaths under 5 years of age.

Phtisis.—Caused 34 deaths over 5 years of age, against 33 last year. This leads me to speak of *Tubercular Diseases* which are due essentially to the entrance into the system of a special microorganism, the tubercle bacillus. In every case of death from consumption the room should be thoroughly cleansed and disinfected. The bacillus is conveyed into the system through meat and milk. It would appear therefore that the two things essential to the prevention of tuberculous disease is to boil or sterilise all milk, and secondly the more systematic and thorough examination of the meat. This can only be done by providing a public slaughter house outside the City, where all meat could be inspected, and I would also advocate the periodical examination of the cows by a *Veterinary Surgeon*, so that he might condemn all cows suffering from Tubercular Disease, and prevent the milk from such cows being sold as food.

Influenza.—Caused 7 deaths during the year 1898, and since its reappearance in 1889-90, after an absence of 41 years in 1847-8, it has been with us every year. It is a highly Infectious Disease in its early stage and should be isolated if possible.

Return of New Cases of Sickness made by Poor Law Medical Officer, Dispensary Surgeon, and of New Patients received into the Kent and Canterbury Hospital.

	POOR LAW.		DISPENSARY.		HOSPITAL IN-PATIENTS.	
	Under 5 years.	5 years and over.	Under 5 years.	5 years and over.	Under 5 years.	5 years and over.
Small Pox	0		0		0	
Scarlet Fever	1	1	13		0	
Diphtheria			4		0	
Membranous Croup			0		0	
Typhus			0		0	
{ Enteric or Typhoid			2		14	
Continued						
Relapsing						
Puerperal						
Cholera						
Erysipelas			1		1	
Measles	1	1				
Injury.....		15	22			
Influenza		10	112		55	
Other Diseases		270	1275		587	
Total.....Poor Law....	299		Dispensary	1429	Hospital.....	657

Refuse Removal and Disposal.—The Refuse Destructor is fast approaching completion, when the dust and refuse of the City will be cremated, and help to supply the motive power for driving the engines to produce the Electric Light. This dust and refuse destructor will be a great sanitary gain and save the expense of carting it down to the Sewage Works.

Electric Light Works.—Have been opened and the light installed within the City. The supply of electric light into shops will improve the atmosphere and make it healthier for the shop assistant.

New Houses.—Several have been built and large building sites have been laid out, showing the increasing prosperity of the City.

Scavenging of the City is still well maintained, and the scavenging the courts and passages is under consideration.

The Sanatorium.—At the close of the year 1897, 18 cases were in the wards, and from that date to December 31st, 1898, 101 cases were admitted, making a total of 119 patients under treatment during the twelve months. 82 patients were suffering from Scarlet Fever and 2 died of the malignant type of this disease, 4 from Typhoid all recovered, 1 Smallpox, 2 Measles (imported), 10 cases of Diphtheria, all recovered, 5 out of this number were treated with Antitoxin, and 1 child was saved from Tracheotomy by this treatment. Mr. Preston performed Tracheotomy successfully on a private case of his at the Sanatorium suffering from Measles. The Sanatorium has proved a great boon to the Ratepayers, for had it not been for the Sanatorium, instead of having 111 cases of Scarlet Fever we should probably have had 300 or 400 cases.

New Building Bye-Laws.—I have not heard they have been formulated, although I believe they have been under the consideration of the Council.

Drainage.—The Northgate Drainage Scheme is still under consideration and it will be a great sanitary gain to do away with the cesspools on the Sturry Road. I would here point out the necessity of increasing the number of public ventilators to the sewers. Some of the sewers at the present time are unventilated, and the inhabitants in these districts run a greater risk by the sewer gas being pent up. In some cases private drains were ventilated and assisted the sewers, but as there is now a wise tendency to disconnect the drains from the sewers by means of intercepting traps, the main sewers become unventilated and hence the necessity of having more public ventilators for the purpose.

Water Supply.—The Gas and Water Company still supply us with the purest water in the kingdom. Notwithstanding the severe drought last summer a continuous supply was kept up. 98 houses have been connected with the Companies mains, in 1898, making a total of 4,687 houses connected.

Sale of Food and Drugs' Act—Mr. Harvey, our City Analyst, has kindly furnished me with the following results of his work during the past year. *Of Food Samples*—21 milks were submitted to analysis, of these 15 were certified as genuine, 2 (from private individuals) yielded evidence of added water, 4 were examined Bacteriologically with regular results. *Of Waters*—45 samples were analyzed, viz.: 12 (once a month) from our Public Water Works, 33 from Private Wells, of these latter 4 complied with the requirements of the local standard, 8 were of doubtful purity, 21 more or less polluted and unsafe for drinking purposes, 22 samples of sewage effluents, &c., and 62 samples of Fertilizers and Feeding Stuffs for Agricultural purposes, making a total of 150 samples reported upon during the year.

The public water supply maintains its great purity, but I am of opinion that these periodical analyses at short intervals are as necessary as ever, and constitute the only safeguard by which any sudden and unexpected pollution can be detected and remedied.

The good quality of our Milk Supply is still maintained, and although repeated Bacteriological Analyses have been made no suspicion has in any case attached to the milk supplied to the houses where outbreaks of Diphtheria, Typhoid Fever, &c., have occurred. The Microscopical Examination of milk has engaged Mr. Harvey's serious attention and he advocates additional precaution in purveying so indispensable an article of food with direction of efficient filtration or sterilisation, or both. No one accustomed to examine milk deposits microscopically can shut his eyes to the fact that despite the precautions and care exercised at present in every well managed Dairy, a great deal of suspicious matter reaches the consumer by the medium of milk. The occupation of a Dairyman and Milk Purveyor is a most anxious and responsible one, and deserves at the hand of the public such adequate renumeration and encouragement as shall enable him to supply this most valuable of foods in a state of perfect purity.

I append the Sanitary Inspector's Report. Mr. Richardson has had a great increase in his work in removing patients to the Sanatorium, and disinfecting the clothing from the Sanatorium.

I remain Gentlemen,

Your obedient Servant,

FRANK WACHER,

Monastery House, Canterbury.

Medical Officer of Health.

I append your Sanitary Inspector's Report of the details of his work as follows, viz.—

104 houses and 12 schools were fumigated after infectious disease.

86 quantities of bedding, &c. and the clothing of 88 patients at the Sanatorium were disinfected at the disinfecting apparatus.

92 patients were removed to the Sanitorium

66 drains were examined on account of illness.

105 houses were supplied with disinfectants and in some cases the drains flushed periodically during cases of illness

95 houses were examined by request.

343 drains were submitted to the smoke test 136 being found defective.

197 complaints were received.

103 nuisances were abated.

66 offensive accumulations were removed.

15 cases of overcrowding were dealt with.

1,160 cottages and tenements were inspected, 181 having defects.

145 drains and closets were unstopped, and 10 cesspools emptied. These houses found to be draining into cesspools were connected with the public sewer, and four other cesspools filled up, earth closets being substituted. Owing to the excessively dry season 46 houses supplied by pumps or wells were without a proper water supply. The attentions of the owners being called to them 34 of the houses have since been connected with the company's mains and 12 were provided with Abyssinian tubes or the wells deepened. An efficient supply was also obtained for 22 houses where the pumps were out of order.

Two slaughter houses have been closed, the premises being required for other purposes. The existing number of registered slaughter houses is 25. In the year 1881 there were 37.

There have been the usual half-yearly inspection of bake-houses, periodical visits made to the cow-sheds and dairies, slaughter houses and lodging house, also to workshops (under the Factory and Workshops Act 1895), which included laundries, dressmaking, millinery and tailoring establishments, and the workrooms of outworkers.